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## **REMARKS**

This amendment is filed in response to the Examiner's first Office Action dated October 8, 2003.

In the Office Action, the Examiner restricts the claims to two groups: Group I: claims 51-70, drawn to an ejector pin for a mold and Group II: claims 71-73, drawn to a method of making an ejector. Applicants confirm election of the claims of Group I and cancels, without prejudice, claims 71-73.

Additionally in the Office Action, the Examiner rejects claims 51, 53-56, and 64 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,788,872 to Uratani, rejects claims 52 and 57-63 under 35 U.S.C. §103(a) as being unpatentable over Uratani in view of U.S. Patent No. 4,684,101 to Wagner et al., and rejects claims 65-70 under 35 U.S.C. §103(a) as being unpatentable over Uratani in view of DE 19701025 A1 to Schroder, U.S. Patent No. 4,708,314 to Kuhling, and Wagner et al.

The present amendment amends claims 51 and 52 and adds claims 74-76. Entry of these claim amendments is respectfully requested.

The remainder of the remarks presented below is directed to the allowability of each independent claim.

## Information Disclosure Statements of April 30, 2002 and May 22, 2002

Applicant respectfully requests acknowledgment of consideration of the two above-identified information disclosure statements, which were respectively mailed to the U.S. Patent Office on April 30, 2002 and May 22, 2002. Courtesy copies of both information disclosure statements along with their accompany PTO-Form 1449 are respectively attached hereto at Tabs B and C.

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## **Independent Claim 51**

Claim 51 is believed to be in condition for allowance because none of the cited references of record, including Uratani, Wagner et al., Schroder, and Kuhling, disclose, teach or suggest, alone or in combination, an injector pin having a barrel that has a hardened portion and a softer portion that is softer than the hardened portion. An ejector pin is a "a rod, pin or sleeve which pushes a molding off or forces it out of a cavity." See definitions of "ejector pins" attached hereto at Tab A. The unhardened portion enables cutting and turning on a lathe. As is further claimed, the barrel of the ejector pin is reciprocable relative to the mold. The references further fail to disclose, teach or suggest the softer portion having an end that is cut to decrease the length of the barrel so as to accommodate the mold in which the ejector pin is to be assembled. This feature permits the barrel 112 of the pin 102 to be of standard length that is cut to the desired length for the type or size of mold into which it is to be installed. In this manner, the ejector pin 102 can be assembled of standard length and size components and cut to the length required by the specific mold into which it is to be assembled before its assembly into the mold. This can be done prior to shipment or after shipment of the pin 102. An end-user can cut the barrel 112 to size. This also enables a pin 102 with an insert 50 to be manufactured as an assembly prior to installation into a mold 40. Even with an insert 50, the barrel 112 can be cut to size by either a mold-maker or an operator or user of the mold.

Uratani fails to disclose, teach or suggest an ejector pin as it lacks any structure whatsoever that could be construed as being an ejector pin. Moreover, even if one assumes otherwise, Uratani fails to disclose, teach or suggest an ejector pin having a head and barrel "reciprocable relative to the mold," as is recited in claim 51.

As the Examiner notes on page 4 of the Office Action, Uratani, a primary reference relied on by the Examiner, fails to disclose an ejector pin having hardened and softer portions. The Examiner admits this. In fact, Uratani fails to disclose any kind of an ejector pin. Instead, Uratani discloses a removable marking device. In an attempt to cure the lacking of a disclosure of a hardened and softer portion, the Examiner states that "hardness of a material may vary {00049317.DOC/}

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depending on the processing techniques of the material during construction. The soft portion of the barrel so it can be cut during the process of making the apparatus and [SIC] does not limit the structural limitation of the apparatus." (Office Action, page 5, lines 1-4). It may be true that hardness of a material may vary depending on the processing techniques of the material during construction. However, this fact does not convert the Uratani removable marking device into an ejector pin that has a barrel with a hardened portion and a softer portion.

In addition, applicant asserts that hardened portion and softer portion are structural limitations. A functional limitation is "an attempt to define something by what it does rather than by what it is." MPEP §2173.05(g). Claim 51 additionally requires the softer end to have an end that *is cut* to decrease the length of the barrel. This is a further structural limitation that is not disclosed by Uratani.

Wagner et al. also fails to disclose an ejector pin. In addition, Wagner et al. fails to disclose, teach or suggest a barrel having a hardened portion and a softer portion. Wagner et al. also fails to disclosure, teach or suggest a softer end that is cut.

Kuhling also fails to disclose, teach or suggest an ejector pin at all, much less one having a barrel with a hardened portion at one end with contacts apart being molded to eject that part and a portion that is softer than the hardened portion. In contrast, Kuhling discloses an adjustable marking device for use in a mold wall.

For at least these reasons, claim 51 is believed to be allowable over the cited references.

## **Independent Claim 69**

Claim 69 is believed to be in condition for allowance because none of the cited references of record, including Uratani, Wagner et al., Schroder, and Kuhling, disclose, teach or suggest an *ejector pin* having a barrel that includes a hardened portion at one end that contacts a part being molded to eject that part and a portion that is softer than the hardened portion at an end at which the head is disposed, the barrel having a length that is capable of being cut to form the end at

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which the end is disposed and thereby decreased in length so as to accommodate a mold into which the ejector pin is to be assembled.

In addition to the failures discussed above, Uratani also fails to disclose, among other things, a barrel that ejects a part being molded. Instead, Uratani merely discloses a removable marking device for a mold. The substantially cylindrical outer member 3, which the Examiner contends corresponds to the barrel of claim 59, has imprint information on its outer surface. As is shown in Fig. 3 of Uratani, the marking device 1 is inserted into a mold. However, there is no disclosure, teaching or suggestion of the barrel ejecting a part that is being molded.

Wagner et al. also fails to disclose, teach or suggest an ejector pin having a barrel that contacts a part being molded to eject that part. Instead, Wagner et al. discloses a quick-change mold insert. The mold insert changes the mold cavity detail as desired. In addition, as discussed above, Wagner et al. also fails to disclose, teach or suggest an ejector pin having a barrel having a hardened portion at one end and a portion that is softer than the hardened portion or any ejector pin.

For at least these reasons, claim 69 is believed to be in condition for allowance.

## **Independent Claim 70**

Independent claim 70 is believed to be in condition for allowance because none of the cited references of record, alone or in combination, disclose, teach or suggest an *ejector pin* having a barrel with a hardened portion at one end with contacts apart being molded to eject that part and a portion that is softer than the hardened portion at an end at which the head is disposed. Furthermore, the references further fail to disclose, teach or suggest an ejector pin having a head that is friction welded or inertia welded to the cut end of the barrel.

As the Examiner admits, Uratani fails to teach or suggest a welding. Although Schroder discloses a welding 55 at the point between the barrel and head, Schroder fails to specifically teach friction welding or inertia welding to a cut end of a barrel.

For at least these reasons, claim 70 is believed to be in condition for allowance. {00049317.DOC/}

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## New Independent Claim 74

Newly presented claim 74 is believed to be in condition for allowance as none of the references alone or in combination disclose, teach or suggest an ejector pin having a hardened portion and a softer portion that is cut to length and in which the head is integrally formed such that the head and barrel form an ejector pin of one-piece, unitary and homogenous construction.

For at least these reasons, claim 74 is believed to be in condition for allowance.

## **New Independent Claim 75**

Newly presented claim 75 is believed to be in condition for allowance as none of the references, alone or in combination, disclose, teach or suggest an ejector pin having a hardened portion and a softer portion that is cut to length and to which the head is attached.

For at least these reasons, claim 75 is believed to be in condition for allowance.

## **New Independent Claim 76**

New claim 74 is believed to be in condition for allowance as none of the references disclose, teach or suggest having a hardened portion carrying an imprintable indicia insert and a softer portion that is cut to length and to which the head is attached Therefore, new claim 76 is believed to be in condition for allowance.

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## **Conclusion**

All of the claims as amended and as newly presented are believed to define patentable subject matter and to be in proper form for allowance. Therefore, consideration and allowance of claims 51-76 are respectfully requested.

A check in the amount of \$43 is enclosed in payment of the fee by a <u>small entity</u> for submission of one independent claim in excess of the number previously presented.

Authorization is given to charge any additional fees or credit any overpayment in connection with this or any future communication to Deposit Account No. 50-1170.

Respectfully submitted,

David D. Stein

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**Definition:** A rod, pin or sleeve which pushes a molding off or forces it out of a cavity. It is attached to an ejector bar or plate Tell us your email address: which can be actuated by the ejector rod(s) of the press or by auxiliary activated cylinders. Definition Copyright @1989 CRC Press LLC.

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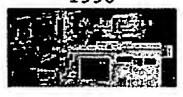




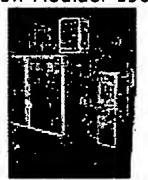
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50Tonne(Max) Kawaguchi KM50C Injection Moulder 1990



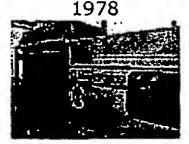
CTS#40792 1Litre(Max) Chung Hua Blow Moulder 1986



CTS#41379 150mm CTS P1 Pelletiser (Strand) 1981



CTS#40990 320Tonne(Max) Johns CF3200 Injection Moulder



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**Term E** Dimension



The outside diameter of neck on a threaded bottle neck (finish). The the neck (finish) is measured across the root of the threads.

EAA Ethylene acrylic acid

EC Ethyl cellulose

**ECTFE** Ethylene chlorotrifluoroethylene

EEA Ethylene/ethyl acrylate

**Effect of Strong** A descriptive notation to indicate the material's performance.

Effective Thread

Turns

Acids

The number of full 360 turns on a threaded closure that are actually i with the neck thread.

Ejector Pin (on

sleeve)

A pin or thin plate that is driven into a mould cavity from the rear as opens, forcing out the finished piece. Also Knockout Pin.

**Ejector Return Pins** Projections that push the ejector assembly back as the mould closes; Surface Pins and Return Pins.

Ejector Rod

Bar that actuates the ejector assembly when mould is opened.

Elastic Deformation The part of the deformation of an object under load which is recoverathe load is removed.

**Elastomer** 

A material which at room temperature stretches under low stress to a ... twice its length and snaps back to the original length upon release of also Rubber.

Electroformed Moulds

A mould made by electroplating metal on the reverse pattern on the Molten steel may be then sprayed on the back of the mould to increa strength.

**Electronic Treating** 

A method of oxidizing a film of polyethylene to render it printable by film between the electrodes and subjecting it to a high voltage coroni

Electroplating

The deposition of a layer of metal on a base of metal or conducting su electrolysis.

Elongati n

(1) The change in the length of a body pulled in one direction by the of a force (2) The fractional increase in length of a material stressed

Elongation, Break

The increase in distance between two gauge marks at the break point

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the original distance between the marks. A zero value in the field indi

it measured less than one.

Elongation, Yield The increase in distance between two gauge marks at a yield point di

the original distance between the marks. A zero value indicates that i

less than one.

EMA Ethylene/methacrylic acid

**Embossing** Techniques used to create depressions of a specific pattern in plastics

sheeting.

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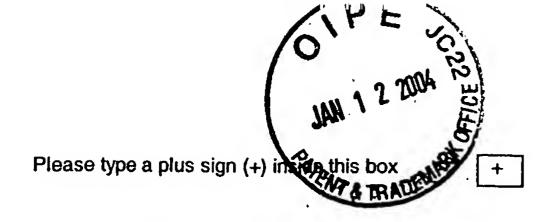
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Attorney: DDS

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## INFORMATION DISCLOSURE STATEMENT

COMMISSIONER FOR PATENTS Washington, D.C. 20231

Sir:

Enclosed are copies of the references listed on the attached "Information Disclosure Statement By Applicant" PTO Form 1449. Some of these references were cited during the prosecution of parent application, U.S. application serial no. 09/177,267, now U.S. Patent No. 6,308,929. The remainder of the references were located by a search that was recently performed.

Respectfully submitted,

David D. Stein Reg. No. 40,868

Boyle, Fredrickson, Newholm, Stein & Gratz, S.C. 250 East Wisconsin Avenue, Suite 1030 Milwaukee, WI 53202 (414) 225-9755

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Serial No.: 10/021,770

Applicant: Klaus A. Wieder

Filing Date: October 30, 2001 Group: 1722

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	3,555,620	1/19/1971	Bucy			
	3,963,209	6/15/1976	Muller			
	4,009,978	3/1/1977	Hanning			
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	5,282,730	2/1/1994	Daniels et al.			

D-M-E Standard Mold Datin	ng Inserts detail sh	neet				
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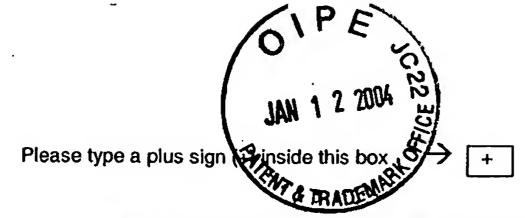
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TRANSMITTAL				Application Numb r		10/021,770		
FORM				Filing Date		October 30, 2001		
	(to be used for a	initial filing)	First Named Inventor		Klaus A. Wieder			
				Group Art Unit		1722		
				Examiner Name				
	Total Numb	er of Pages in This Sub	mission 3+	Attorney Docket Num	ber	1078.007		
			ENCLOSURES	(check all that apply	·)			
	Fee Transmit	tal Form		nent Papers Application)		After Allowance Communication to Group		
	Fee At	ttached		Drawings		Appeal Communication to Board of Appeals and Interferences		
	Amendment /	/ Reply	Licensir	ng-related Papers		Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)		
	After F	final	Petition			Proprietary Information		
	Affidav	vits/declaration(s)	Petition to Convert to a Provisional Application			Status Letter		
	Extension of	Time Request	Change of Correspondence Address Terminal Disclaimer Request for Refund CD, Number of CD(s)		Other Enclosure(s) (please identify below):  urn Postcard			
	Express Abar	ndonment Request						
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	Certified Copy Document(s)	of Priority						
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I heret	by certify that this an envelope add	correspondence is beir fressed to: Commission	ng deposited with ter for Patents, Was	he United States Postal S chington, D.C. 20231 on thi	Service is date:	with sufficient postage as first class May 22, 2002		
Туре	or printed name	Robyn H. O'Nei	11					
Signa	ture	Rollin H	. O hell	D	ate	5/22/02		

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time your are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

**PATENT** 

## THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application Of:

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## SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

COMMISSIONER FOR PATENTS Washington, D.C. 20231

Sir:

This information disclosure statement is supplemental to the information disclosure statement filed April 30, 2002. Enclosed are copies of the references listed on the attached "Information Disclosure Statement By Applicant" PTO Form 1449. These references have been located as a result of a recent search that was performed. Also enclosed are copies of commonly owned U.S. Patent Nos. 6,367,765 and 6,308,929 for consideration by the Examiner. Please note that commonly owned U.S. application serial nos. 09/900,392 and 10/109,428 are presently pending. The '428 application is a continuation-in-part of the application that issued as the '765 patent. The above-identified '770 application is a continuation of the application that issued as the '929 patent. A copy of the '428 and '392 applications are also enclosed.

No fee is believed to be owed at this time. However, the Commissioner is hereby authorized to charge payment of any additional fees associated with this or any other communication or credit any overpayment to applicant's attorney's Deposit Account No. 50-1170.

Respectfully submitted,

Date: MAY 22, 2002

David D. Stein Reg. No. 40,828

Boyle, Fredrickson, Newholm, Stein & Gratz, S.C. 250 East Wisconsin Avenue, Suite 1030 Milwaukee, WI 53202 (414) 225-9755 Attorney Docket No: 1078.007

Form PTO-1449 (M diffied) Page 1 of .  LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use several sheets of recessary)			Atty. Docket No. 1078.007		Serial No.: 10/021,770			
		/o` °c	Applicant: Klaus A. Wieder					
		JAN 9 2 2004 P	30/H.	Filing Date: October	22	2		
REFERENC	E DESIC		3	DOCUMENTS				
Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing I	Date If opriate
	AA	4,000,561	1/4/1977	Wieder et al.				
	AB	4,420,446	12/13/1983	Wieder et al.				
	AC	6,308,929	10/30/2001	Wieder				
	AD	6,367,765	4/9/2002	Wieder				
		FC	DREIGN PATENT	Γ DOCUMENTS			-	
		Document Number Date Country Class Subclass Transla						
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		OTHER ART (In	cluding Author, T	itle, Date, Pertinent Pa	ages, Etc.)			
EXAMINER				DATE CONSIDER	ED			
		if reference considered, whethe				raw line throu	gh citatio	n if